

Factors Affecting Health Disparities in Rural Populations in the Mississippi River Delta Region

Danielle Scherb Spring 2018



UNIVERSITY OF MINNESOTA
ROCHESTER

Introduction

The Delta Region is made up of sixteen rural counties in southern Illinois and has the worst health outcomes in the state. This research examines key factors that contribute to health disparities for rural residents which are greater than their urban counterparts. The region is a Medically Underserved Area (MUA), which means they have a lack of access to primary care services including mental health. However, this rural region does not meet the definition for Medically Underserved Populations (MUP), even though they experience the highest morbidity and mortality rates. This research takes a closer look at access to care, uninsured, and suicide death rates within the region in compared to other areas of the state.

Methods

Using the University of Minnesota Library Databases, I conducted a literature review looking at peer-reviewed articles regarding rural health and suicide. With Google Search, I investigated government reports and websites that compare a variety of rural and urban health factors across the U.S. The Rural Health Information Hub website provided statistics for medically underserved areas for Illinois counties, including the Delta Region. Looking at the Robert Wood Johnson Foundation County Health Ranking and Roadmaps website and database, I located the data for death and uninsured rates for the Delta Region, the state of Illinois, and the United States. Data was downloaded from these websites to create charts in Microsoft Excel and online mapping tools were used to make the maps.

Results

Table 1. MUA shortages in Delta Region

County	Primary Care	Mental Health
Alexander	Yes	Yes
Franklin	Yes	Yes
Gallatin	Yes	Yes
Hamilton	Yes	Yes
Hardin	Yes	Yes
Jackson	Yes	Yes
Johnson	Yes	Yes
Massac	Yes	Yes
Perry	Yes	Yes
Pope	Yes	Yes
Pulaski	Yes	Yes
Randolph	Yes	Yes
Saline	Yes	Yes
Union	Yes	Yes
White	Yes	Yes
Williamson	Yes	Yes

Source: ruralhealthinfo.org

Figure 1. Death Rates

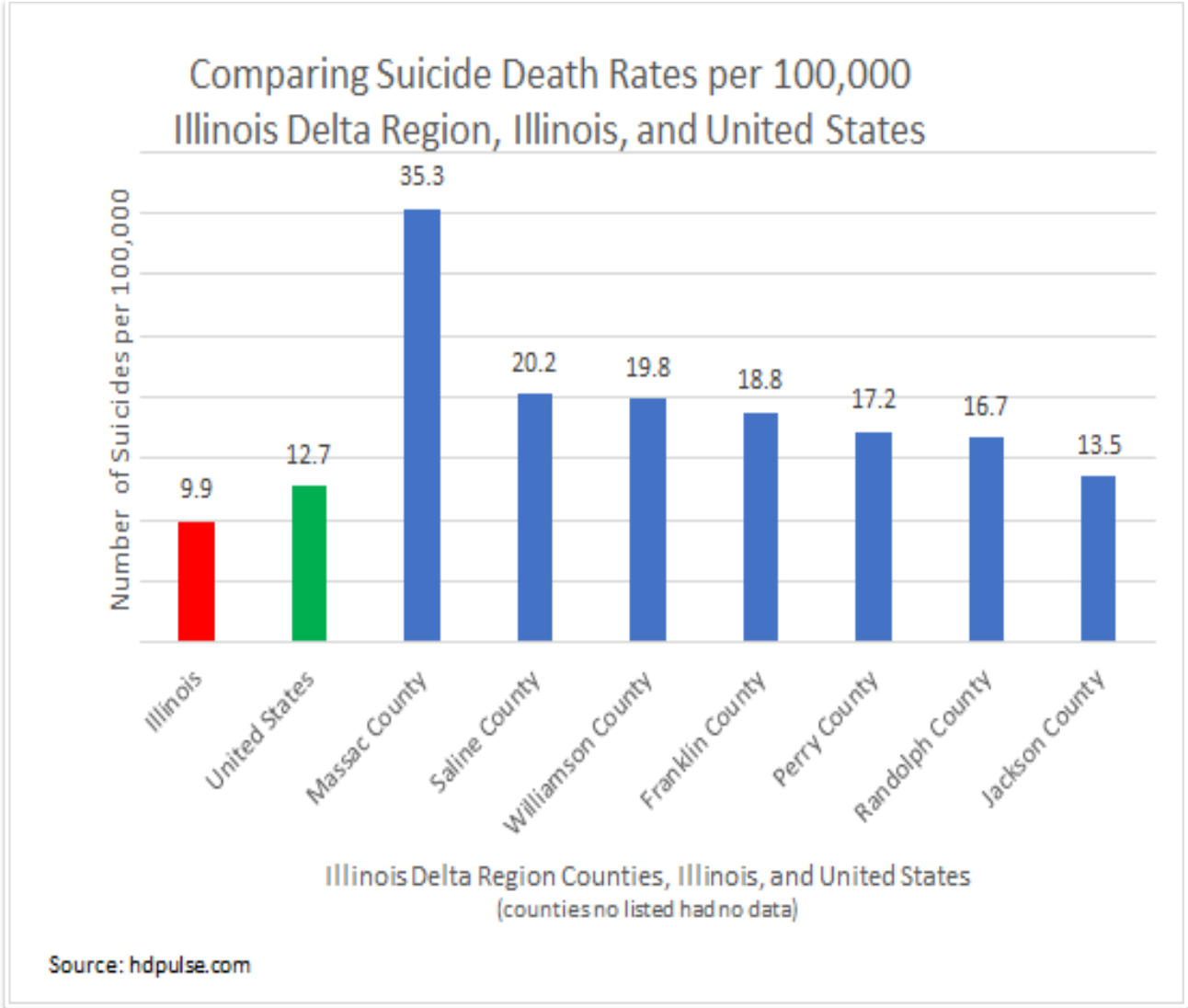
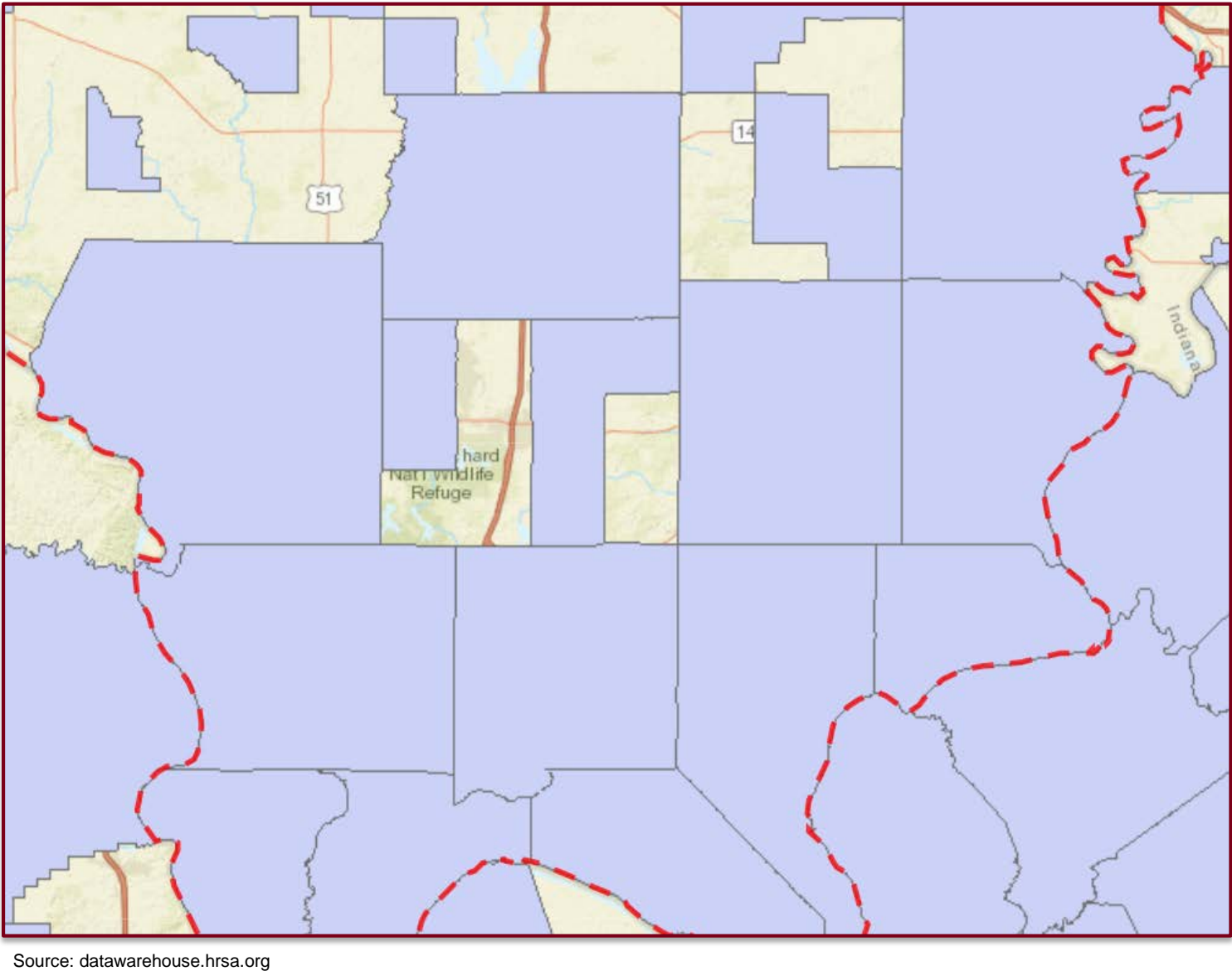


Figure 2. Map of MUA Counties in Delta Region



Source: datawarehouse.hrsa.org

Table 2. Population Uninsured in Delta Region

Location	Percent(%) Uninsured
Alexander County	14
Franklin County	13
Gallatin County	14
Hamilton County	13
Hardin County	13
Jackson County	15
Johnson County	12
Massac County	12
Perry County	12
Pope County	14
Pulaski County	14
Randolph County	11
Saline County	13
Union County	14
White County	13
Williamson County	13

Source: countyhealthrankings.org

Discussion

The uninsured rate of the Delta Region ranges 12% to 15% of the population⁴. Every county in the region is registered as being underserved in primary care and mental health¹. Perry, Randolph, and Williamson counties are the only ones out of the 16 that are not registered as a medically underserved area¹. Of the counties in the Delta Region that have the data all have suicide rates higher than that of the state of Illinois and the United States². Higher rates of uninsured are correlated to higher suicide rates⁵.

Conclusion

Medically Underserved Areas in the Delta Region are lacking in primary care and mental healthcare. They also have higher uninsured rates compared to the rest of the state. This combined with higher rates of suicide in the Delta Region highlight potential contributors to health disparities in the area. Going forward, I plan to look specifically at indicators for Alexander County in the Illinois Delta Region. This includes the city of Cairo which has a racially diverse population with high levels of poverty.

References

1. 'Am I Rural? Tool - Rural Health Information Hub' <<https://www.ruralhealthinfo.org/am-i-rural>> [accessed 15 April 2018]
2. 'Death Rates Table - HDPulse' <<https://hdpulse.nimhd.nih.gov/data/deathrates/index.php?stateFIPS=17&cod=256&race=00&sex=0&age=001&type=death&sortVariableName=rate&sortOrder=default#results>> [accessed 15 April 2018]
3. 'HRSA Data Warehouse - Map Tool' <<https://datawarehouse.hrsa.gov/Tools/MapTool.aspx?tl=MUA&qt=State&cd=17#>> [accessed 15 April 2018]
4. 'Illinois Downloads', *County Health Rankings & Roadmaps* <<http://www.countyhealthrankings.org/app>> [accessed 15 April 2018]
5. Tondo, Leonardo, Matthew J. Albert, and Ross J. Baldessarini, 'Suicide Rates in Relation to Health Care Access in the United States: An Ecological Study', *The Journal of Clinical Psychiatry*, 67 (2006), 517-23